

PATENT COOPERATION TREATY

From the
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

PCT

To: HALL, Robert, Leonard Harrison Goddard Foote Fountain Precinct Balm Green Sheffield S1 2JA GRANDE BRETAGNE		Harrison Goddard Foote Due Date _____ Checked _____	NOTIFICATION OF TRANSMITTAL OF THE INTERNATIONAL PRELIMINARY EXAMINATION REPORT (PCT Rule 71.1)
		Date of mailing (day/month/year)	23.12.2004
Applicant's or agent's file reference P071969WO		IMPORTANT NOTIFICATION	
International application No. PCT/GB 03/03614	International filing date (day/month/year) 19.08.2003	Priority date (day/month/year) 19.08.2002	
Applicant UPONOR INNOVATION AB			


1. The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary examination report and its annexes, if any, established on the international application.
2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.
3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those Offices.
4. **REMINDER**

The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices) (Article 39(1)) (see also the reminder sent by the International Bureau with Form PCT/IB/301).

Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide.

The applicant's attention is drawn to Article 33(5), which provides that the criteria of novelty, inventive step and industrial applicability described in Article 33(2) to (4) merely serve the purposes of international preliminary examination and that "any Contracting State may apply additional or different criteria for the purposes of deciding whether, in that State, the claimed inventions is patentable or not" (see also Article 27(5)). Such additional criteria may relate, for example, to exemptions from patentability, requirements for enabling disclosure, clarity and support for the claims.


Name and mailing address of the international preliminary examining authority:  European Patent Office - P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk - Pays Bas Tel. +31 70 340 - 2040 Tx: 31 651 epo nl Fax: +31 70 340 - 3016	Authorized Officer Dekker, M Tel. +31 70 340-4046
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INTERNATIONAL PRELIMINARY EXAMINATION REPORT
(PCT Article 36 and Rule 70)

Applicant's or agent's file reference P071969WO	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/PEA/416)	
International application No. PCT/GB 03/03614	International filing date (day/month/year) 19.08.2003	Priority date (day/month/year) 19.08.2002
International Patent Classification (IPC) or both national classification and IPC B32B1/08		
Applicant UPONOR INNOVATION AB		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 7 sheets, including this cover sheet.
- ☐ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).
- These annexes consist of a total of sheets.

3. This report contains indications relating to the following items:
- I ☒ Basis of the opinion
 - II ☐ Priority
 - III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
 - IV ☐ Lack of unity of invention
 - V ☒ Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
 - VI ☐ Certain documents cited
 - VII ☐ Certain defects in the international application
 - VIII ☐ Certain observations on the international application

Date of submission of the demand 04.02.2004	Date of completion of this report 23.12.2004
Name and mailing address of the international preliminary examining authority:  European Patent Office - P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk - Pays Bas Tel. +31 70 340 - 2040 Tx: 31 651 epo nl Fax: +31 70 340 - 3016	Authorized Officer Derz, T Telephone No. +31 70 340-3159



**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. **PCT/GB 03/03614**

I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

Description, Pages

1-17 as originally filed

Claims, Numbers

1-17 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
☐ the language of publication of the international application (under Rule 48.3(b)).
☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority in written form.
☐ furnished subsequently to this Authority in computer readable form.
☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
☐ the claims, Nos.:
☐ the drawings, sheets:

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

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**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement**

1. Statement

Novelty (N)	Yes: Claims	
	No: Claims	1,6,8,9,12-15,17
Inventive step (IS)	Yes: Claims	
	No: Claims	2-5, 7, 10, 11, 16
Industrial applicability (IA)	Yes: Claims	1-17
	No: Claims	

2. Citations and explanations

see separate sheet

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Re Item V

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

Reference is made to the following documents;

the numbering will be adhered to in the rest of the procedure:

D1: GB2323556

1) Novelty

The present application does not satisfy the criterion set forth in Article 33(2) PCT because the **subject-matter of Claims 1,6,8,9,12-15,17 is not novel** in respect of prior art as defined in the regulations (Rule 64(1)-(3) PCT).

D1 defines in the claims a plastics pipe which comprises an inner core (PE) and an outer protective layer (PP homo- or copolymers), in which the dimensions of the pipe and the protective layer are such that the ratio of the external diameter of the pipe to the thickness of the protective layer is at least 100, and the cohesive strength of the outer protective layer, excluding any lines of weakness, at least at the ends of the pipe is greater than the strength of the adhesive bond between the outer protective layer and the inner core.

The outer protective layer can be peeled from the inner core, at least at the ends of the pipe, to reveal an inner core surface suitable for electrofusion welding. The inner core comprises polyethylene and the outer protective layer comprises a propylene homo- or copolymer.

Also the manufacture is the same as disclosed in the present application: the coextruded molten plastics materials are brought into contact with each other in the pressure area of an extruder die and allowed to cool.

The mere fact that not the Young's modulus of the same materials PE and PP in the same 2-layer pipe with peelable protective skin has been measured, rather the tensile strengths, does not create novelty nor does it establish an inventive step over D1.

The applicant is reminded of the Guidelines C-IV 7.5:

'The lack of novelty may be implicit in the sense that, in carrying out the teaching of the

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prior document, the skilled person would inevitable arrive at a result falling within the terms of the claim. Situations of this kind occur when the claims define the invention, or a feature thereof, by parameters (cf. C-III 4.7a).'

In the absence of technically distinguishing features concerning the materials and their arrangement, furthermore achieving the same effect, the ratio of Young's moduli are only the measurement of other material-inherent properties of the same materials as disclosed in D1.

Therefore D1 takes away the novelty of the subject-matter of present claims
1,6,8,9,12-15,17.

2) Inventive Step

The present application does not satisfy the criterion set forth in Article 33(3) PCT because the subject-matter of Claims 2-5, 7, 10, 11 and 16 does not involve an inventive step (Rule 65(1)(2) PCT).

2.1 D1 solves already the same problem of protecting plastic pipes from scratches which are pushed or pulled through an excavated tunnel in the ground, and whose ends are to be joined by electrofusion welding, **by the same technical means** (same polymers in the same arrangement, same thickness ratios, peelability of outer, protective skin).

The **objective problem** to be solved by the present invention over D1 may therefore be regarded as finding (better?) (sub?) ranges of material properties of the known range of the employed polyolefin pipes of the same type.

Dependent Claims 2-5, 7, 10, 11, 16 do not appear to contain any additional features which, in combination with the features of any claim to which it/they/ refers/refer/, involve an inventive step for the following reasons:

It is generally known to the person skilled in the art that the feature Young's modulus is an equivalent to the very related feature tensile strength of document D1 - and more important that it is a material property - which is just measured.

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The material features PE for the inner core and PP-copolymers which cause and lead to the measured technical features Young's modulus and the other mechanical properties, are described in document D1 as providing the same advantages as in the present application. The skilled person would therefore regard it as a normal option to measure these feature in the D1 to solve the above objective posed problem.

2.2 D1 introduces already the teaching that impact strength of the plastic pipe is related to part of the adhesion between inner and outer layer (D, p. 10) and the forthcoming problems from an adhesion too strong. Furthermore D1 specifies all employed polymers by their tradenames (the present application does not). Hence, for any of the claimed ranges it simply can be verified whether the pipes of D1 do fall into these ranges or not.

2.3 Selection inventions with ranges defined by parameters do require in first instance the novelty of sub-ranges and overlapping ranges.

A selected sub-range (A'B') is considered novel if each of the following three criteria is satisfied (T 198/84, OJEPO 1985, 209; T 279/89):

- (I) The selected sub-range is *narrow* compared to the range disclosed in the prior art;
- (ii) the selected sub-range is *sufficiently far removed* from the end-points (A, B) of the known range and, at the same time, from any specific examples (▽, ★) disclosed in the prior art;
- (iii) the selected range is not an arbitrary specimen of the prior art, i.e. not a mere embodiment of the prior art, but another invention comprising a *purposive selection* with a new technical teaching.

At least criterion (iii) seems not met in this case here, because no particular effect seems to occur in the selected sub-range (if there is any), which does not also occur in the whole of the known range of D1.

Criteria (I) and (ii) only can be verified after establishing the parameter for D1.

It is to be emphasized that this concept (iii) of assessing novelty of a sub-range is distinct from the assessment of inventive step. Hence, the existence of any particular technical effect (in (iii)) should not be confused *with* inventive step (rather the technical effect is used to confirm the finding of novelty already achieved).

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Here the decisive question to be answered is whether or not the skilled person *would* have selected the sub-range in the hope of solving the underlying problem *or* in expectation of some improvement or advantage.

As stated in 2.1 and 2.2 above, D1 solves the same problem by the same technical material means. Furthermore the present application is apparently *not* stating a new technical effect.

Certain observations on the international application:

3) Clarity

The application does not meet the requirements of Article 6 PCT because Claims 1, 14 and 16 are not clear.

The terms *sufficient*, *insufficient* and *substantial* used in Claims 1 and 14 are vague and indefinite and, as such, renders the scope of the claim unclear;
Claims 14 and 16 comprises a reference to the description, accordingly, the claims requires amendment to remove this defect (Article 6 PCT).